



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,102	02/19/2002	Kenneth J. Wayne	10011474-1	6062

7590 07/14/2003

AGILENT TECHNOLOGIES, INC.
Legal Department, DL429
Intellectual Property Administration
P.O. Box 7599
Loveland, CO 80537-0599

EXAMINER

WUJCIAK, ALFRED J

ART UNIT

PAPER NUMBER

3632

DATE MAILED: 07/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/079,102

Applicant(s)

WAYNE, KENNETH J.

Examiner

Alfred J Wujciak III

Art Unit

3632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15 and 17 is/are rejected.
- 7) ☒ Claim(s) 14 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: _____

DETAILED ACTION

This is the final Office Action for the serial number 10/079,102, LOW COST OPTOMECHANICAL MOUNT FOR PRECISELY STEERING/POSITIONING A LIGHT BEAM, filed on 11/8/02.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent # 4,834,519 to Twisselmann.

Twisselmann teaches an optomechanical system (figure 10) comprising a sphere (15) adapted to receive an optical element (50). The system includes a first set of curved surfaces (13) and a second set of curved surface (13) in contact with the sphere. Each member of the first set of curved surfaces contacts the sphere at approximately just one point and each member of the second set curved surface contacts the sphere at approximately just one point. Each member of the first set of curved surfaces is a ball and each member of the second set of curved surfaces is a ball. Each ball in the first set of balls has a corresponding ball in the second set of balls (col.2, lines 40-46) wherein each ball in the first set applies a force to the sphere that is collinear with and opposite to a force that corresponding ball in the second set applies to the sphere. The system comprises a housing (10) and a lid (10a). The first set of curved surfaces comprises three

Art Unit: 3632

curved surfaces (the right side of elements 10 and 10a are in contact with the sphere) and the second set of curved surfaces comprises three curved surface (the left side of elements 10 and 10a are in contact with the sphere).

Claims 15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent # 5,946,127 to Nagata.

Nagata teaches an optomechanical system comprising a sphere (10) being placed in a housing (20). The sphere having an opening shaped to receive an alignment tool (11). The system comprising a plurality of stationary magnets (13 and 31) fixed to the housing (20 and 30). The system further comprises a cover attached to the housing (28).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Twisselmann in view of US Patent # 5425238 to Takagi.

Twisselmann teaches the balls but fails to teach the balls are made of steel. Takagi teaches the ball is made of steel (61b). It would have been obvious for one of ordinary skill in the art at the time the invention was made to have modified Twisselmann's ball to a steel material as taught by Takagi to provide an additional strength for supporting the sphere.

Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Twisselmann in view of US Patent # 6,499,374 to Ohga.

Twisselmann teaches the balls but fails to teach the balls are made of ceramic. Ohga teaches the ceramic ball (5). It would have been obvious for one of ordinary skill in the art at the time the invention was made to have modified Twisselmann's ball to a ceramic material as taught by Ohga to provide an additional strength for supporting the sphere.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Twisselmann in view of US Patent # 6,499,374 to Ohga and in further view of Takagi.

Twisselmann in view of Ohga teaches the balls but fails to teach the balls are made of steel. Takagi teaches the ball is made of steel (61b). It would have been obvious for one of ordinary skill in the art at the time the invention was made to have modified Twisselmann's ball to a steel material as taught by Takagi to provide an additional strength for supporting the sphere.

Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Twisselmann in view of US Patent # 6,170,795 to Wayne.

Twisselmann teaches the sphere but fails to teach the sphere includes an opening. Wayne teaches the sphere (12) including an opening (figure 3). It would have been obvious for one of ordinary skill in the art at the time the invention was made to have added opening in Twisselmann's sphere as taught by Wayne to provide insertion of a tool for rotating the sphere.

Response to Arguments

Applicant's arguments filed 4/29/03 have been fully considered but they are not persuasive.

With respect to applicant's argument on pages 2-3 stating that Twisselmann does not teach an optical element or any other object received within the joint ball itself. In claim 1, "a sphere adapted to receive an optical element," which means from the examiner's interpretation that the sphere can either support or contain an optical element. Twisselmann shows that the sphere supports an optical element (microscope). The sphere allows the optical element (microscope) to rotate or pivot about vertical axis.

On page 3 of applicant's argument stating that Nagata does not teach the plurality of stationary magnets fixed to the housing and in contact with the sphere. Nagata shows plurality of stationary magnets being fixed to the housing and in contact with the sphere. The magnets (13 and 31) are permanently mounted on elements 15 and 47 and they are not moved along elements 15 and 47. The magnets need to be stationed within the housing to provide a magnetic force between the two magnets. If the magnets were not stationary, there would not be any magnetic force between the two magnets.

Allowable Subject Matter

Claims 14 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In regard to claim 14, the prior art fails to teach the system comprises the first set of three curved surfaces comprises 3 balls and the second set of three curved surfaces also comprises 3 balls. In regards to claim 18, the prior art fails to teach the system comprises a spring attached to the cover for applying a downward force upon the sphere.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alfred J Wujciak III whose telephone number is 703 306 5994. The examiner can normally be reached on 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Les Braun can be reached on 703 308 2156. The fax phone numbers for the

Application/Control Number: 10/079,102

Page 7


Art Unit: 3632

organization where this application or proceeding is assigned are 703 872-9326 for regular communications and 703 872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 1113.

Joey Wujciak
July 1, 2003

JW


KIMBERLY WOOD
PRIMARY EXAMINER